

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OKLAHOMA

LEXINGTON INSURANCE COMPANY,)
CERTAIN UNDERWRITERS AT)
LLOYD'S OF LONDON SUBSCRIBING)
TO POLICY NO. 012944882,)
as Subrogees of Gavilon Grain, LLC)
and Gavilon Fertilizer, LLC,)
GAVILON GRAIN, LLC, and)
GAVILON FERTILIZER, LLC,)
Plaintiffs,)
vs.)
NEWBERN FABRICATING, INC., and)
BAUCOM CONCRETE)
CONSTRUCTION, INC.,)
Defendants.)
and)
NEWBERN FABRICATING, INC.,)
Third-Party Plaintiff,)
vs.)
DOVELAND ENGINEERING CO.,)
Third-Party Defendant.)
and)
BAUCOM CONCRETE)
CONSTRUCTION, INC.,)
Third-Party Plaintiff,)
vs.)
COMMERCIAL METALS COMPANY,)
Third-Party Defendant,)

CASE NO. 14-cv-610-CVE-TLW

REPORT AND RECOMMENDATION

As set forth in the District Court’s July 28, 2016 Opinion and Order (dkt. 285), this action arises from the collapse of an exterior wall to a fertilizer storage facility (the “Facility”) at the Tulsa Port of Catoosa on March 7, 2013. Plaintiff Gavilon Grain owned the Facility, which Gavilon Fertilizer used to store fertilizer.¹ In 2004, Gavilon Grain contracted with defendant Newbern Fabricating, Inc., a construction company that builds river terminals and equipment, to build the Facility. Third-Party Defendant Doveland Engineering Co., Third-Party Plaintiff Baucom Concrete Construction Co., and Third-Party Defendant Commercial Metals Company (“CMC”) were all contractors on the project. The Facility was operational in early 2006.

CMC has filed a motion seeking to exclude or limit the testimony of Newbern’s expert, metallurgist Dr. Edward Cox. (Dkt. 144). Specifically, CMC asks that the Court exclude from trial the following:

Any and all opinions of Dr. Cox that the Number 9 (Grade 60) longitudinal reinforcing steel bars (“rebar”) used in the fertilizer bin columns at issue were defective when produced, were brittle, were manufactured in their entirety by CMC, or caused or contributed to the collapse of the fertilizer bin.

(Dkt. 144 at 5). CMC argues that such an exclusion is proper because Cox lacks the qualifications necessary to testify on issues related to rebar, his opinions would not assist the jury, and his test methodology is unreliable. Id. CMC also argues that if Cox is permitted to testify that the rebar he examined was brittle, he should not be allowed to testify that all of the rebar was CMC’s or that all of the rebar was brittle. Id.

¹ When referencing Gavilon Grain and Gavilon Fertilizer together, the Court uses Gavilon.

I.

Federal Rule of Evidence 702 permits a qualified expert witness to testify and render an opinion when

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. In Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 597, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1992), the Supreme Court held that the trial court serves a “gatekeeping” function in determining what testimony is admissible under Rule 702. The trial court must “assess the reasoning and methodology underlying the expert’s opinion, and determine whether it is both scientifically valid and applicable to a particular set of facts.” Dodge v. Cotter Corp., 328 F.3d 1212, 1221 (10th Cir. 2003).

II.

CMC makes a brief argument that Cox is not qualified to testify as an expert on rebar. (Dkt. 144). CMC argues that Cox’s experience is focused on “examining welds” and “destructive testing on welds” and that his CV shows no publications or work performed on rebar. Id.

Cox has a B.S. in Metallurgical Engineering and both an M.S. and Ph.D. in Theoretical and Applied Mechanics, all from the University of Illinois. (Dkt. 182 at 12). He is a registered Professional Engineer in Texas, Illinois, and Alabama, and he has been a certified welding inspector since 1993. Id. He has also received two awards from the American Welding Society, one in 1977 and one in 1988. Id. In addition, his CV indicates that he has written “approximately

2000 technical reports and publications.” Id. at 13. These reports and publications generally address “materials” issues, including “design and materials interaction.” Id. Cox also has a wide variety of experience as a testifying expert witness, and his work history includes experience in steel foundries and with steel manufacturers. Id.

The Court finds that Cox is qualified under Federal Rule of Evidence 702 by education and experience to testify in the field of metallurgy generally and on the topic of rebar and the impact welding has on rebar specifically.

III.

CMC contends that Cox’s testimony would not assist the jury because his opinion about the brittle nature of the rebar is irrelevant to the ultimate question, which is the cause of the collapse. (Dkt. 144). CMC cites Cox’s deposition testimony, in which he acknowledged that the only breaks in the rebar were at the welding points and opined that the welding contributed to, but did not cause, the collapse. Id. CMC quotes a portion of Cox’s deposition, in which he was asked whether, in his opinion, “the rebar that was not welded contributed in any fashion to the wall collapse.” Id. (quoting Dkt. 144-1). Cox responded, “In this particular collapse, no.” Id.

CMC also argues that there is no evidence that the rebar was brittle throughout. (Dkt. 144). CMC contends that the issue in this case is whether the rebar was defective (i.e. brittle) at the time it left CMC’s control and that Baucom bears the burden of proof. Id. CMC argues that Cox labeled the testing on altered rebar “questionable” for the purpose of determining the rebar’s condition at the time of manufacturing. Id. CMC also points out that Cox testified that the mill reports of ASTM A 615 testing performed at the time of manufacture would be helpful “because any brittleness should have been detected at the mill.” Id.; Dkt. 144-1 at 16.

Baucom responds that Cox's opinion that the rebar was brittle is "extremely relevant to the determination of how and why the wall collapsed." (Dkt. 182). Baucom contends that CMC misinterprets Cox's testimony. Id. Baucom argues that Cox opines that the welds created a localized point of stress that essentially acted as a notch in the rebar and that because the rebar was brittle, it fractured. Id. Cox's statement that the unwelded rebar did not contribute to the collapse, Baucom argues, should not be construed in the broad manner that CMC suggests. Id. Rather, Cox testified that unwelded rebar was not a causative factor because all the rebar in the failed columns was welded. Id.

Baucom also rejects CMC's argument that it bears the burden of proving that the rebar was brittle when it left CMC's control. Id. Baucom claims that such an argument should be reserved for a dispositive motion and that, in the context of plaintiffs' claims, the only relevant issue is that the rebar was brittle. Id. Therefore, proof of when or how the rebar became brittle is not required for the evidence of brittleness to be admissible as relevant evidence under Federal Rule of Evidence 702. Id.

CMC's argument that Cox's opinions regarding the brittleness of the rebar are not relevant to the ultimate issue is unpersuasive. An expert witness need not testify regarding the ultimate issue for the testimony to be relevant. See Fed. R. Evid. 702 (expert witness testimony is admissible generally if it "helps the trier of fact to understand the evidence or to determine a fact in issue."); Fed. R. Evid. 704, cmt. (noting that Rule 704 served to abolish the prohibition *against* expert witness testimony on an ultimate issue of fact). Cox's opinion addresses a potential cause of the collapse and is, therefore, relevant.

With respect to the brittleness of the rebar, Cox concludes in his report that the "Longitudinal #9 size rebar fractured in a brittle manner causing the vertical concrete columns to

collapse and break into multiple segments.” (Dkt. 182-1 at 9). This opinion is based on Cox’s observation that the rebar samples he examined exhibited both visual and microscopic evidence of single-event brittle behavior. (Dkt. 182-1 at 6-7). Cox also opines that there was no evidence of long-term corrosion or deterioration to explain the brittle behavior. Id. at 7. Finally, Cox relies on a notch-bend test that he contends supports his finding that the rebar was brittle. Id. at 5. Accordingly, Cox cites three reasons to support his conclusion regarding the rebar. The first two are based on his own personal observations and are within the scope of his expertise. Therefore, the Court finds that Cox may testify regarding these two reasons and that these reasons lay a foundation for Cox’s opinion, which is admissible, that the #9 size rebar which he observed personally or through photographs was brittle.

As to Cox’s testimony that the rebar was brittle “throughout,” it is not clear whether the term “brittle throughout” is intended to reference the extent of the brittleness on the single piece of rebar subjected to Cox’s notch-bend test, the rebar observed by Cox (personally or via photographs), or the entirety of the rebar supply used to construct the Facility. To the extent that CMC is referencing the last of these three, the Court agrees that Cox should only be allowed to testify that the rebar he examined (personally or via photographs) was brittle. Cox’s expert report does not lay a foundation for an opinion by him that all the rebar used in the facility was brittle.²

Regarding CMC’s challenge to any opinion by Cox that the rebar caused or contributed to the collapse, it is clear from Cox’s expert report that he believes the rebar was brittle *and* contributed to the collapse. Cox’s expert report serves as the basis for his opinions and any testimony he may give at trial; therefore, that document controls. If CMC believes that Cox’s

² The Court will address the limitations on Cox’s testimony in more detail in the last paragraph of the Section V. of this report and recommendation. See infra at V.

testimony during his deposition undercuts or contradicts his expert report, that issue goes to his credibility and to the weight to be given to his testimony. Absent testimony that far more clearly recants the opinions in his report or that directly and clearly undercut his observations of the rebar, such testimony does not undermine the admissibility of Cox's opinions.

CMC also argues that Cox's testimony is only relevant if it establishes that the rebar was brittle at the time of manufacture. Even if CMC's liability turns on the condition of the rebar at the time of manufacture, whether the rebar was brittle at some point later remains relevant to a resolution of the ultimate issue, the cause of the collapse. While it is possible that CMC could prevail on a dispositive motion based on a finding that the rebar was not brittle at the time of manufacture (or a finding that the rebar had not been shown to be brittle at the time of manufacture), were CMC to prevail in this manner, evidence that the collapse resulted from the presence of brittle rebar (at the time of the collapse) would remain relevant to this case.

As to CMC's argument that testimony related to the notch-bend should be excluded, if Cox's testing methodology for the bend test meets the reliability standards of Daubert, then testimony regarding the test and the results of the test would be admissible as an additional basis for his opinion that the rebar was brittle at the time of the collapse. This issue is addressed below.

IV.

CMC raises several arguments to support its claim that the methodology Cox used on the notch-bend test was unreliable. First, CMC argues that Cox's notch bend test fails to meet the standard for testing the rebar at issue, ASTM A 615. (Dkt. 144). CMC also contends that the rebar met the ASTM A 615 standards for "chemical composition, yield strength, tensile strength and

elongation,” which definitively proves that the rebar was not defective.³ Id. Second, CMC argues that Cox is unable to articulate the standard he did use in performing the notch bend test and did not adequately record his test methodology for the Court to conduct a proper Daubert evaluation. Id.

Baucom disputes CMC’s claim that ASTM A 615 is the sole standard for testing rebar. (Dkt. 182). Citing what appears to be an industry treatise, the ASM Handbook 9th ed., Baucom points out that there are “four different types of bend tests [commonly used] to determine ductility and toughness of metal after welding.” Id. Baucom also argues that ASTM A 615 Section 10.3 includes provision for alternative tests, including a three-point bend test such as the one Cox performed. Id. In fact, Baucom contends that the test Cox performed was “less severe” than other, similar bend tests, thereby establishing definitively that the rebar was brittle. Id.

The Tenth Circuit, applying Daubert, requires the proponent of expert testimony to establish that the expert used reliable methods to reach his or her conclusions and that the expert’s opinion is based on a reliable factual basis. See Bitler v. A.O. Smith Corp., 400 F.3d 1227, 1233 (10th Cir. 2004). The Tenth Circuit cited four factors that district courts should apply to make a reliability determination:

- (1) whether a theory has been or can be tested or falsified; (2) whether the theory or technique has been subject to peer review and publication; (3) whether there are known potential rates of error with regard to specific techniques; and (4) whether the theory or approach has “general acceptance.”

³ Although the ASTM A 615 tests for composition, yield strength, and tensile strength demonstrated that the single piece of CMC rebar tested met ASTM A 615 standards, those tests do not measure ductility. The ASTM A 615 bend test or other comparable bend tests measure ductility (a lack of which would determine whether the rebar was brittle as Cox contends). However, the piece of rebar available for testing was not long enough to conduct the ASTM A 615 bend test or any of the alternative tests discussed in Cox’s deposition. (Dkt. 148-1 at 9, 16).

Id. at 1233 (quoting *Daubert*, 509 U.S. at 593-94). The “trial court's focus generally should not be upon the precise conclusions reached by the expert, but on the methodology employed in reaching those conclusions.” Id. Under Daubert, “any step that renders the analysis unreliable ... renders the expert's testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology.”” Mitchell v. Gencorp Inc., 165 F.3d 778, 782 (10th Cir. 1999) (quoting In re Paoli R.R. Yard PCB Litigation, 35 F.3d 717, 745 (3d Cir. 1994)). The party offering the expert testimony has the burden to prove that the expert is qualified and that his opinions are based in sound methodology and sufficient facts. See Dodge, 328 F.3d at 1222; Fed. R. Evid. 702 Advisory Committee Note to 2000 Amendments (“the proponent has the burden of establishing that the pertinent admissibility requirements are met by a preponderance of the evidence”).

The first question for the Court is which standard or standards constitute proper methodologies. CMC argues that ASTM A 615 is the sole method for determining whether the rebar was defective and contends that the testing performed demonstrates that the single piece of CMC rebar tested met ASTM A 615 standards. (Dkt. 144). In his report and deposition, Cox stated that the ASTM A 615-04 criteria would not apply to the tests performed because “ASTM A 615 applies only to rebar provided by the mill. When you bend it, twist it, or weld it, it's no longer A 615 mill-supplied material. It falls outside the requirements of the specification.” (Dkt. 148-1 at 3). He testified, however, that it was still possible to determine the quality of the rebar at the time it was produced, but “whether or not you can accurately assess the material after use according to its as-supplied standard is questionable.” Id. In fact, Cox's report states that the testing for mechanical properties, hardness testing, and bulk chemical analysis were performed using a

variety of ASTM test criteria by the agreement of both parties. (Dkt. 148-3). The St. Louis Lab report testing confirms this assertion. (Dkt. 148-2).

CMC cites no authority to support its contention that ASTM A 615 is the only bend test that would measure the ductility of the rebar at the time it was sold. (Dkt. 144). Rather, CMC argues, in opposition to Cox's methodology, that the ASTM A 615 was the "most closely-applicable standard" that could be applied. (Dkt 144 at 20, n. 10). CMC's insistence on using ASTM A 615 appears to be linked to its theory that it can only be liable for the condition of the rebar at the time of manufacture. (Dkt. 144, 183).

Because CMC has raised the issue of the applicability of the ASTM A 615 test standard as the sole measure for testing the rebar in its motion for summary judgment, the Court will not make a final determination on that point. However, even if the Court adopted CMC's position that ASTM A 615 is the only standard for conducting a bend test, ASTM A 615 provides for alternative bend tests. The standard states as follows:

10.1 The bend-test specimen shall withstand being bent around a pin without cracking on the outside radius of the bent portion. The requirements for degree of bending and sizes of pins are prescribed in Table 3. When material is furnished in coils, the test sample shall be straightened prior to placing it in the bend tester.

10.2 The bend test shall be made on specimens of sufficient length to ensure free bending and with apparatus which provides:

10.2.1 Continuous and uniform application of force throughout the duration of the bending operation.

10.2.2 Unrestricted movement of the specimen at points of contact with the apparatus and bending around a pin free to rotate.

10.2.3 Close wrapping of the specimen around the pin during the bending operation.

10.3 It is permissible to use more severe methods of bend testing, such as placing a specimen across two pins free to rotate and applying the bending force with a fixed pin. When failures occur under more severe methods, retests shall be permitted under the bend-test method prescribed in 10.2.

(Dkt. 149-2). One question, then, is whether Cox's test qualifies as an alternative test under 10.3.

First, ASTM A 615 does not specifically eliminate notch-bend tests, but it does not specifically permit them either. Second, assuming notch-bend testing would be permitted, Cox's testimony and report state that the test he performed was less severe than the bend test described in ASTM A 615. (Dkt. 148-4 at 5; 148-1 at 7). Thus, Cox's test does not meet the requirements of an alternative test under AST A 615.

However, Cox opines that because the test he conducted was less severe, there is no question that the rebar would have failed the ASTM A 615 bend test. Id. Accepting as true the concept, that a less severe test could establish brittleness, Baucom's argument remains unpersuasive because of the limited evidence regarding the way the notch-bend test was conducted. Specifically, evidence about the test is so thin and the methodology Cox employed is so vague that the Court cannot measure the test against any other accepted methodology presented by the parties, including the bend test described in ASTM A 615. Thus, Cox's notch-bend test fails Daubert.

Cox testified that the notch-bend test he suggested was a “Neuber-type analysis” that “look[s] at how materials change in the presence of a notch.” (Dkt. 148-1 at 6). He explained that notch testing began at “the turn of the last century where steel mills would do what they call a nick-break test where a sample of steel, either in process or finished, would be notched and then bent to fracture to look at its behavior to ascertain to what extent it exhibited brittle or ductile behavior.” Id. Cox then named three modern versions of that test: the Charpy test, fracture toughness tests, and the Navy and ASTM drop-weight test. Id. Fracture toughness tests are a category of testing, one of which is set forth in ASTM 399. Id. at 7.

When asked about the standard he used for the notch-bend test on the twelve-inch rebar sample, Cox described the test in numerous ways: (1) as “an offshoot of the nick-break test used at the turn of the last century;” (2) as “a poor man’s version of the ASTM 399 three point bend fracture toughness test;” (3) as “analogous to a three point bend Charpy’s sample;” and (4) as “analogous to the drop-weight test, which is a saw cut in the bottom of a sample that’s loaded in three point bending.” Id. Cox admits that these descriptions do not follow any of numerous available test protocols for testing ductility of metal (not limited to rebar). Id. Cox gave two reasons for deviating from existing test protocol. First, Cox stated that the lab where the joint testing took place did not have the equipment to perform a regular bend test, so a notch test was the only available test option. Id. at 9. Second, the single twelve-inch length of rebar available for testing was insufficient to meet the standards for any of the notch-bend tests Cox could have otherwise performed. Id. at 7-9. Cox also testified that the insufficiency of the sample size was the reason that an ASTM A 615 bend test was not performed. Id. at 9.

In addition to his failure to follow existing, accepted test protocols, Cox did not adequately document the methodology he did employ. In its response, Baucom attached photographs from the notch-bend test. (Dkt. 182-7). The photographs include multiple shots of the rebar after the test, several pictures of the equipment used, and two photographs measuring the rebar and the depth of the notch made. Id. Cox testified that he could not measure the load applied to the rebar during the test because the equipment did not place any measurable force on the rebar before it failed. (Dkt. 148-1). Cox opined that the lack of any measurable force establishes that the rebar was brittle. Id.

The Court does not accept this conclusion. As already noted, Cox’s methodology in conducting the notch-bend test did not follow any established protocol. Instead, Cox improvised the notch-bend test, using the equipment available rather than requesting that the test be conducted

at a different time using equipment he needed. Cox also used a sample that he admits was of insufficient length. Cox's test did not follow any generally accepted methodology, it was not documented in a way that can be adequately reviewed, and the error rate of the test methodology Cox used cannot be measured or analyzed.⁴ Accordingly, Cox's methodology fails to meet the reliability requirement of Daubert.

V.

CMC's last argument is that Cox, even if permitted to testify that the rebar he examined was brittle, should not be allowed to testify that all the rebar in the Facility was CMC rebar or that all the rebar was brittle. CMC notes that, of the rebar recovered, only one piece had a CMC identifying mark. (Dkt. 144). Thus, CMC argues that, except for this one piece of rebar, there is no evidence that it supplied the rebar used in constructing the Facility. CMC contends that Baucom has the burden of proof to establish that CMC supplied the rebar used in the project and that it has failed to do so. Id. Likewise, CMC contends that there is no evidence that the rebar, even if supplied by CMC, came from the same batch or suffered the same defect testified to by Cox.

The source of the rebar was the subject of a discovery dispute between Baucom and CMC. (Dkt. 135). This dispute began when CMC filed a motion *in limine* seeking to exclude (1) any evidence that the rebar was brittle or defective and (2) any evidence that it supplied the rebar used in building the Facility. Id. With respect to the second issue, CMC cited the fact that there were no

⁴ Baucom's response also includes a twenty-page declaration from Cox, further explaining his position and correcting the "misunderstandings, misrepresentations, and erroneous technical statements" in CMC's motion. (Dkt. 182-3). CMC objected to the declaration, arguing that it was an improper attempt to bolster Cox's testimony. (Dkt. 208). The Court need not decide whether Cox's declaration is a proper exhibit because the declaration does not include any information that would explain Cox's notch-bend test methodology more clearly.

records from the rebar supplier, Diamondback, which establish that CMC's rebar was used in the Facility. Id. CMC specifically referenced the lack of "mill reports" and "batch information." Id.

Baucom later filed a motion for sanctions against CMC for failure to respond to Baucom's requests for discovery, through which Baucom sought to obtain the mill reports. (Dkt. 251). Baucom argued that CMC should not be allowed to contend that Baucom could not establish CMC as the manufacturer of the rebar while simultaneously admitting that it could not produce the mill reports, which would help establish whether CMC's rebar was used in the Facility. Id.

The Court heard argument on CMC's motion *in limine* as part of an omnibus hearing and ordered Baucom and CMC to confer on several issues related to identifying the source of the rebar. (Dkt. 261). As a result of that conference, Baucom and CMC filed a stipulation, in which CMC agreed that a representative from Diamondback, the rebar supplier, could be called as a witness at trial. (Dkt. 265). CMC reserved the right to object to the substance of that testimony. Id. Baucom agreed that it would not object to CMC's admission of mill reports, which were obtained through Diamondback and produced outside of the discovery deadline, based on timeliness. Id.

In its reply to the instant motion, CMC attached the mill reports that it obtained from Diamondback. (Dkt. 209, 210). CMC uses the mill reports in support of its argument that the rebar was not defective at the time of production under the standard ASTM A 615 testing that it argues Cox should have performed. (Dkt. 208). Notably, although CMC relies on the mill reports to show that it produced rebar that meets industry standards, it does not admit that its rebar was used in the project. Id. Resolving whether CMC supplied the rebar, however, is not necessary for purposes of ruling on the admissibility of Cox's opinions. Cox's expert report does not attempt to opine on the source of the rebar used in the project. He identifies the three #9 rebar samples merely as numbers 3, 4, and 5. (Dkt. 182-1 at 6). Thus, any testimony by Cox that attempts to identify the source of

the rebar would be outside the scope of his expert report and, therefore, inadmissible. See Fed. R. Civ. P. 26(a)(2)(B)(i).

As to the scope of Cox's brittleness opinion, the Court addressed this issue above and will do so in more detail here. In the "Discussion" portion of his report, Cox's opinion addresses all the #9 rebar samples. His analysis, with one exception, adheres strictly to his observations and the testing of the rebar samples. This exception appears in the third paragraph of his "Discussion," where Cox states, "[c]onsistent with *the* brittle rebar fracture, . . ." Id. at 7 (emphasis added). But Cox then goes on to describe rebar that he observed in "scene photographs." Id. Cox's use of the word "the" is vague. If it is intended to indicate that all the rebar used in the portion of the Facility that failed was brittle or that all the rebar used in the entire Facility was brittle, such an opinion is not admissible because Cox's expert report contains no foundation for it. Thus, irrespective of what Cox intended, he may opine that the rebar which was tested (excluding the notch-bend test) or which he personally observed was brittle at the time of the collapse, but he should not be allowed to opine that all the rebar used in the Facility was brittle. Such testimony would be outside the scope of his expert report and would lack any foundation.⁵

RECOMMENDATION

For the reasons set forth above, the undersigned **RECOMMENDS** that CMC's Daubert Motion to Exclude Testimony of Dr. Edward Cox (dkt. 144) be **GRANTED IN PART AND DENIED IN PART**. Specifically, Cox should be found qualified to testify as an expert witness in the field of metallurgy and with respect to the characteristics of the rebar used in the Facility. Cox should be allowed to testify that the rebar was brittle based on his observations of the rebar samples

⁵ Considering the late production of the mill reports, the District Court may choose to allow examination of Cox, outside the presence of the jury, to determine whether he can use those reports to lay a foundation for an opinion that all the rebar was brittle.

removed from the columns and tested and based on his review of the photographs identified in his report. Cox should also be allowed to testify regarding (1) the additional tests conducted on the rebar samples, for which CMC has not raised an objection, and (2) the impact that the welds had on the rebar, for which CMC has raised no objection. Cox should not be allowed to testify regarding the bend-notch test or any results from that test because it does not meet the standard for reliability under Daubert.

Subject to the foregoing, with respect to CMC's specific request that the Court bar Cox from testifying that the Number 9 (Grade 60) longitudinal reinforcing steel bars ("rebar") used in the fertilizer bin columns at issue were defective when produced, were brittle, were manufactured in their entirety by CMC, or caused or contributed to the collapse of the fertilizer bin, Cox should not be allowed to testify regarding the condition of the rebar when produced; he should be allowed to testify that the rebar was brittle at the time of the collapse; he should not be allowed to testify that the rebar was manufactured in its entirety by CMC; and, he should be allowed to testify that the rebar contributed to the collapse of the Facility.

OBJECTION

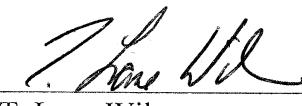
In accordance with 28 U.S.C. § 636(b) and Federal Rule Civil Procedure 72(b)(2), a party may file specific written objections to this report and recommendation. Such specific written objections must be filed with the Clerk of the District Court for the Northern District of Oklahoma by February 6, 2017.

If specific written objections are timely filed, Federal Rule Civil Procedure 72(b)(3) directs the district judge to:

determine *de novo* any part of the magistrate judge's disposition to which a party has properly objected. The district judge may accept, reject, or modify the recommended disposition; receive further evidence; or return the matter to the magistrate judge with instructions.

Id.; see also 28 U.S.C. § 636(b)(1). The Tenth Circuit has adopted a “firm waiver rule” which “provides that the failure to make timely objections to the magistrate’s findings or recommendations waives appellate review of both factual and legal questions.” United States v. One Parcel of Real Property, 73 F.3d 1057, 1059 (10th Cir. 1996) (quoting Moore v. United States, 950 F.2d 656, 659 (10th Cir. 1991)). Only a timely specific objection will preserve an issue for *de novo* review by the district court or for appellate review.

SUBMITTED this 22nd day of January, 2017.



T. Lane Wilson
United States Magistrate Judge